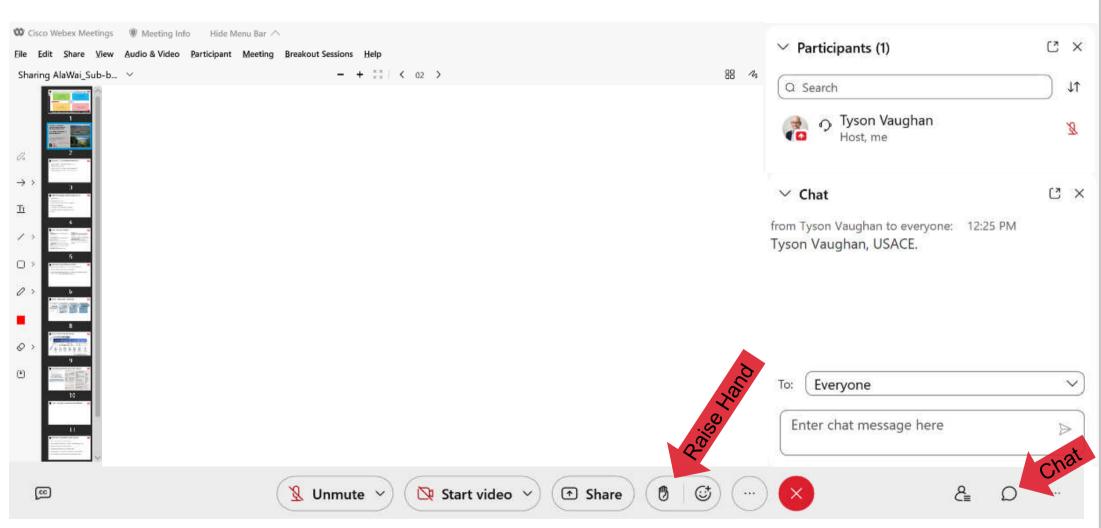


## **WELCOME!**





## ALA WAI FLOOD RISK MANAGEMENT GENERAL RE-EVALUATION STUDY

# COMMUNITY MEETING: ALTERNATIVES

US Army Corps of Engineers (USACE) City and County of Honolulu (CCH)

13 December 2022

\*This session is being recorded.













## **TODAY'S AGENDA**



- Introduction (15 min) ← You are here!
- 2. Presentation: Update on Study Progress (45 min)
- 3. Facilitated Breakout Group Discussions (75 min)
- Large Group Discussion (40 min)
- 5. What Next? And Wrap-Up (5 min)

(3 hours total)



## **HOSTS & DISCUSSANTS**



### Presenters (USACE):

- Cindy Acpal, Project Manager
- Eric Merriam, PhD, PMP; Planner; Study Lead
- Kelley Philbin, PE; Engineer; Technical Lead
- Zack Hartley, Lead Planner

### MC / Lead Facilitator (USACE):

• Tyson Vaughan, PhD; Sociologist

### Additional Facilitators (USACE):

- Vera Koskelo, Public Involvement Specialist
- Kendall Campbell, Public Involvement Specialist/Tribal Liaison

### Discussants (CCH):

- Haku Milles, PE, LEED AP; Director, Dept. of Design and Construction
- Bryan Gallagher, PE; Acting Deputy Director, Dept. of Design Construction
- Matthew Gonser, AICP, CFM; Chief Resilience Officer, Office of Climate Change, Sustainability and Resiliency
- Dawn Szewczyk, PE; Director & Chief Engineer, Dept. of Facility Maintenance
- Laura Thielen, Director, Dept. of Parks and Recreation



## **GROUND RULES: PRESENTATION**



- 1. Post comments and questions in the chat or hold until breakouts.
- 2. Keep your audio on mute during the presentation.
- 3. If you are having technical difficulties, let us know via the chat and/or email to Tyson Vaughan: <a href="mailto:Earl.T.Vaughan@usace.army.mil">Earl.T.Vaughan@usace.army.mil</a>.



## **TODAY'S AGENDA**

- 1. Introduction (15 min)
- 2. Presentation: Update on Study Progress (45 min) ← You are here!
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- 5. What Next? And Wrap-Up (5 min)

(3 hours total)

## **REVIEW: COMMUNITY INPUT**



- 1. Nov 2021: Scoping Workshops (x 2)
- 2. Jan 2022: Information Forum
- 3. April 2022: Sub-basin Workshops (x 4)
- 4. July 26 & 28, 2022: Alternatives Workshops
- 5. December 13, 2022: Community Meeting on Alternatives

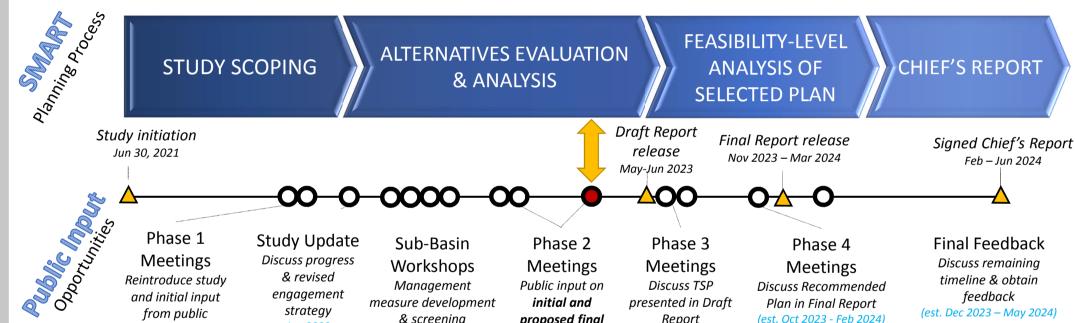
223 total management measures (~200 suggested by public) 168 Crowdsource Reporter comments Dozens of emails to AlaWai@honolulu.gov

More opportunities to come!



## STUDY PROCESS & TIMELINE





Phase 1 Meetings Reintroduce study and initial input from public

Nov 2021

Study Update Discuss progress & revised engagement

> strategy Jan 2022

Sub-Basin Workshops Management measure development & screening

Apr 2022

Phase 2 Meetings Public input on

initial and proposed final array

Jul & Dec 2022

Phase 3 Meetings

Discuss TSP presented in Draft Report

(est. May-Jun 2023)

Phase 4 Meetings

Discuss Recommended Plan in Final Report (est. Oct 2023 - Feb 2024)

(est. Dec 2023 – May 2024)

Final Feedback

Discuss remaining timeline & obtain feedback



## **REVIEW: STUDY OBJECTIVES**

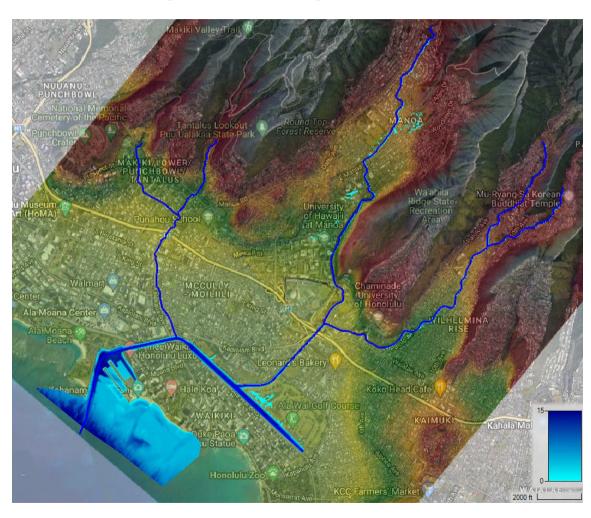


- 1) Reduce risks to life and safety associated with direct inundation of structures (residential, non-residential, and critical facilities) and transportation infrastructure
- 2) Reduce economic damages associated with direct inundation of structures (residential, non-residential, and critical facilities) & public infrastructure
- 3) Reduce economic impacts associated with disruption of commerce and tourism



## NO ACTION 2% AEP (50-YEAR) FLOOD EVENT





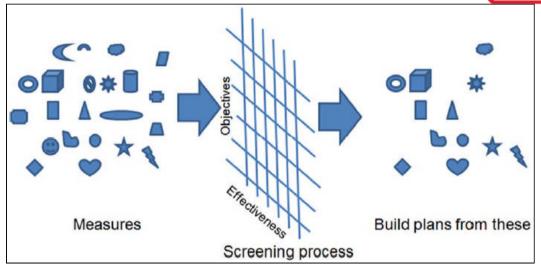


## **REVIEW: MEASURE EVALUATION & SCREENING**



### Screening/evaluation criteria:

- <u>Study Authority</u> Is it within study authority?
- <u>Technical Feasibility</u> Is it technical feasible?
- Effectiveness Extent it would reduce damaging water surface elevations.
- Efficiency Expected cost-effectiveness.
- Environmental Effects Benefits/impacts.



The plan formulation process is iterative, by design, and measures are continuously screened and evaluated concurrently with the formulation and evaluation efforts for alternatives. Each iteration is intended to provide an additional level of detail to inform evaluation and decision-making efforts.



## REVIEW: ALTERNATIVE FORMULATION

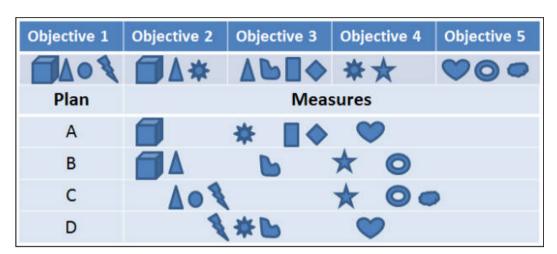


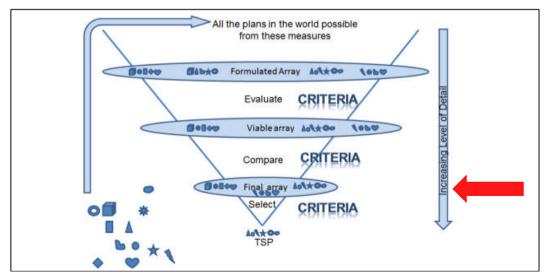
<u>Plan Formulation</u> – combining measures to make plans that meet study objectives

Large number of management measures and possible combinations requires deliberate process to formulation

Formulation is an iterative process. Successive iterations increase in detail.

Today, we will be discussing the proposed final array of alternatives.







## **REVIEW: ALTERNATIVE EVALUATION**



### **Evaluation Criteria:**

- Completeness: includes all actions needed to realize objectives/achieve effects
- Acceptability: consistency with laws, policy, and regulations
- Efficiency: preliminary cost/benefit analysis
- Effectiveness (life safety): reduced inundation/water velocities, impacts to critical & transportation infrastructure
- Effectiveness (economic damages): reduced inundation, damage estimates
- Environmental effects: qualitative assessment of impacts or benefits
  - e.g., in-stream habitat, marine habitat, water quality, terrestrial habitat, listed species
- Social considerations: qualitative assessment of socioeconomic considerations
  - e.g., Socially vulnerable populations, community cohesion, quality of life



## MANAGEMENT MEASURE TRACKER UPDATE



### Management measure tracker:

- Used to document measures and key information related to those measures
- Focused, real-time feedback on technical & planning process
- Management Measure Tracker is being replaced by the Plan Formulation Tracker

Ala Wai Flood Risk Management GR Study	<ul> <li>Management Measure Tracking Spreadsheet</li> </ul>
last undated: Sontember 30, 3023	

racking #	Measure Name	Basin	Description	Type	Status	Notes/Rationale
			During high Tide Ala Wal Blvd, between Kalaksua and the cut de sac ending at . Ala Moona Blvd: floods, Ala Wal canal in this area needs flap gates to keep Ala			Provision, modification, and/or maintenance of drainage systems to capture and convey interior runoff in urban areas is a non-federal responsibility and therefore cannot be include in a recommendation made as a result of this general revealuation report. However, this stud- can make modifications to natural stream channels or previously modified natural waterways that help reduce backup within adjacent drainage systems. Blig gates will be considered for a
	Flap gates on storm drains	Ala Wai Canal	Wai Canal water from flooding storm drains and flooding streets.	Gates	Retained	that neip reduce backup within adjacent drainage systems, map gates will be considered for a streams/areas that meet this criteria.
	Elevate canal walls	Ala Wai Canal	Increase canal capacity by elevating the existing canal floodwalls	Floodwail/Berm	Screened Out	Components and concepts of this measure are included in #193. This measure will be screene out for redundancy.
						Dredging to the maintenance elevation is encouraged for the City to maintain consistently. Despiring the canal further than the maintenance elevation is generally not recommended due to the stability of canal walls and slope stability. Increasing storage of the canal can technically reduce flooding but not without instability of the structural components of the bridges and canal walls. The integrity of the canal walls as-is would not withstand excavation only replacing with an entirely new system would. Further analysis is needed to determine the
i i	Deepen the canal	Ala Wai Canal	Excavate to deepen the existing canal and stabilize existing floodwalls.	Channel Modification	Screened Out	stability of bridge pier and footings. See measure 5.
	Deepen canal for periodic pump drainage	Ala Wai Canal	Dig existing walls deeper to turn the canal into a periodic pump drainage to address inundation by all three sources of flooding	Channel Modification	Screened Dut	Diging the existing walls deeper is not recommended due to their structural integrity. Purpoling the canal in its entirety to increase storage capacity is not recomended due to stabili of the existing canal walls. Hydrostatic pressure is likely needed for structural stability. Technical analysis needed to determine structural stability of bridge piers and footings. See measures 5 and 197.
r l	Deepen the carul, replace canul walls with higher flood protection	Ala Wai Canal	Dreege canal down to its original depth of 15' to 25', and replace the degraded infrastructure with new canal walls that are set for greater flood protection.	Channel Modification	Retained	The integrity of the canal walls as-is would not withstand greater deedging efforts than maintence deedging- only replacing with an entirely new system would. Further enables is needed to determine the appropriate wall height, the stability of bridge pier and footings, and the optimid depth that blankers slopes stability and flood storage. Other considerations include dredged material contamination.  Upon hydraulic analysis, dredging the canal to its original design depth can reduce flood risk. However, a more appropriate canal design depth/cut will be evaluated considering canal wall stability, bridge piers, and the level of contamination below the current dredged depth. This measure will be retained until a conclusive impact to water surface elevation can be made wit appropriate assumptions.
	Widen canal	Ala Wai Canal	Widen the canal to provide greater flow and storage capacity.	Channel Modification	Screened Out	Widening the canal for the entire length would require extensive real extate acquisitions with significant costs. Widening the eastern end of the canal would reduce the real extate ecquisition costs, but did not provide more flood storage. The capacity of the canal is autimately driven by tidal influence. Expanding canal storage through the use of floodwalls and/or utilizing existing storage areas along the canal (e.g., goff course, Ala Wai Community Park) are more efficient and are considered elsewhere.
	Dredge Ala Wai Canal to original depth	Ala Wai Canal	Dredge canal down to its original depth of 15' to 25' since current dredging only goes down to 12'.	Channel Modification		Dredging to the mointenance elevation is encouraged for the City to maintain consistently. Depening the canal further than the maintenance elevation is generally not recommended due to the stability of canal walls and slope stability. Increasing storage of the canal can technically reduce flooding but not without instability of the structural components of the bridges and canal walls. The integrity of the canal walls as is would not withstand excavation only replacing with an entirely new system would. Further analysis is needed to determine the stability of intige piet and footings. See measure 3.
	1040 W 00W	S 1227 WG	C1999-200 (2409) 49	120 11101273	10 102-00	The Manoa-Paiolo Canal is currently dredged to its design depth. Dredging further would impact canal wall stability and provide no additional benefit to the surrounding communcties due to the tidal influence (below Date Street) and steep channel slope (above Date St). No
	Dredge Manna-Palolo	Lower Watershed	Dredge the Manoa-Palolo channel	Channel Modification	Screened Out	further dredging is recommended.  Organizing clean-ups is outside the scope of the current study. Community involvement for
	Canal clean ups	Ala Wai Canal	Involve the community to conduct regular clean ups	Debris Management	Screened Out	clean ups after construction is a possibility; however, those initiatives those initiatives need to be initiated by other entities.
10	Effective Microorganisms (EM) to eliminate sludge	Ale Wai Canel	Use "genki balls" to clean up and eliminate sludge in the canal. These healthy microorganisms work to digest sludge in the canal which will help not only to execute water from the canal quicker, but also restore the ecosystem and reduce frequency for dredging.	Water Quality	Screened Out	Studge eliminated by the genki balls would have to be extensive enough to reduce flood risk in order to be justified under the current study. Genki balls would eliminate the organic matter within the canal, which only makes up a small portion of material within the canal. Genki balls as a standalone measure would not provide enough reduction in material to increase storage capacity of the canal and reduce flood waters. Genki balls could be incorporated into a separate effort forused on ecosystem restoration.
	125 A. C. C. (127 C.	New York Control of		0.000	200000000000000000000000000000000000000	Improving water quality is outside the scope of this project. Dyster filters could be
tt.	Oysters to clean the canal	Ala Wai Canal	Use pysters as filters to clean the canal waters.	Water Quality	Screened Out	incorporated into a separate effort focused on ecosystem restoration.

NOTE: Only displaying measures 1-11 of 223 total.



## PLAN FORMULATION TRACKER INTRODUCTION



### Plan Formulation Tracker:

- Available at: <u>https://www.honolulu.gov/alawai</u>
- Successor to the Management Measure Tracker
- Intent: To share the latest array of alternative plans, to provide an overview of the progression of alternatives through the plan formulation process, and to provide insight into the technical process.
- Updated versions of the Plan Formulation Tracker may be posted as the study continues to progress





Ala Wai Flood Risk Management General Reevaluation Study

Plan Formulation Tracker Workbook

December 2022



## **ALTERNATIVE MAP SYMBOLOGY**



- The alternative maps demonstrate changes in the alternatives over time\*
- The symbology for these changes is as follows:



Measure was included in the Initial Array for an alternative, but not in the Proposed Final Array for that alternative



Measure was not included in the Initial Array for an alternative, it was added in a subsequent plan formulation iteration, and not included in the Proposed Final Array for that alternative



Measure was not included in the Initial Array for an alternative, but was included in the Proposed Final Array for that alternative

\*More details pertaining to the plan formulation process for each alternative can be found in the Plan Formulation Tracker



## Alternative 1 – Storage Cornerstone Initial Array

#### Cornerstones:

- 1. Makiki District Park Detention
- Kanaha Floodwall
- 3. Manoa Valley District Park Detention
- 4. Ala Wai Golf Course Detention

- 5. Kaimuki High School Berm/Floodwall
- 6. Koali Road Floodwall
- 7. Woodlawn Channel Modification
- 8. Woodlawn Bridge Modification
- 9. Woodlawn Drive Bypass
- 10. Woodlawn Bridge Floodwall
- 11. Ala Wai Canal Floodwall
- 12. Palolo Valley District Park Detention
- 13. Nonstructural to reduce residual risk (not shown)



### Alternative 1 – Storage Cornerstone Plan Formulation Progression (4 iterations)

#### Cornerstones:

- 1. Makiki District Park Detention
- 2. Kanaha Floodwall
- 3. Manoa Valley District Park Detention
- 4. Ala Wai Golf Course Detention
- 5. Kapiolani Park Detention Basin

- 6. Kaimuki High School Berm/Floodwall
- 7. Koali Road Floodwall
- 8. Woodlawn Channel Modification
- 9. Woodlawn Bridge Modification
- 10. Woodlawn Drive Bypass
- 11. Woodlawn Bridge Floodwall
- 12. Ala Wai Canal Floodwall
- 13. Palolo Valley District Park Detention
- 14. Daylight Makiki Stream
- 15. Nonstructural to reduce residual risk (not shown)

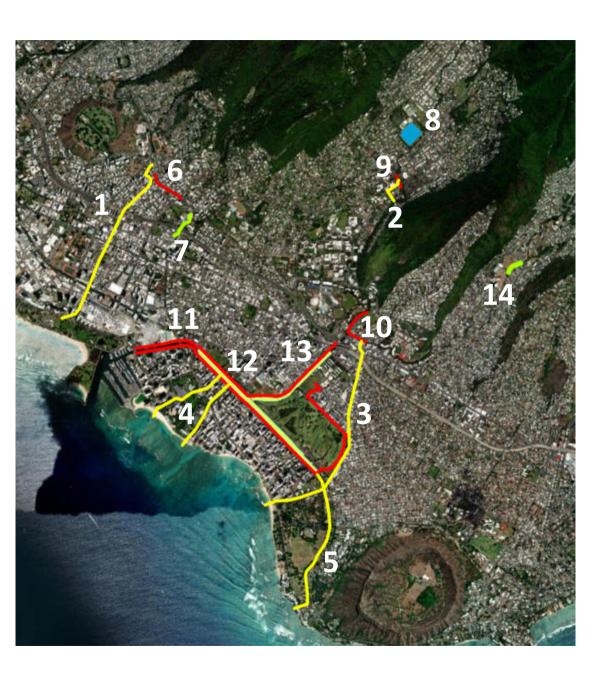


## Alternative 1 – Storage Cornerstone Proposal for Final Array

#### Cornerstones:

- 1. Makiki District Park Detention
- 2. Kanaha Floodwall
- 3. Manoa Valley District Park Detention
- 4. Ala Wai Golf Course Detention

- 5. Kaimuki High School Berm/Floodwall
- 6. Woodlawn Bridge Floodwall
- 7. Koali Road Floodwall
- 8. Nonstructural to reduce residual risk (not shown)



## Alternative 2A – Conveyance Cornerstone Initial Array

#### Cornerstones:

- 1. Piikoi Bypass
- 2. Woodlawn Drive Bypass
- 3. Palolo Culverts
- 4. Waikiki Bypass
- 5. Paki Ave Bypass

- 6. Kanaha Floodwall
- 7. Daylight Makiki Stream
- 8. Manoa Valley District Park Detention
- 9. Woodlawn Bridge Floodwall
- 10. Koali Road Floodwall
- 11. Ala Wai Canal Floodwall
- 12. Dredge Ala Wai Canal
- 13. Dredge Manoa-Palolo Canal
- 14. Palolo Channel Modification
- 15. Nonstructural to reduce residual risk (not shown)



## Alternative 2A – Conveyance Cornerstone **Proposal: Screen Out**

#### Cornerstones:

- 1. Piikoi Bypass
- 2. Woodlawn Drive Bypass
- 3. Palolo Culverts
- 4. Waikiki Bypass
- 5. Paki Ave Bypass

- 6. Kanaha Floodwall
- 7. Daylight Makiki Stream
- 8. Manoa Valley District Park Detention
- 9. Woodlawn Bridge Floodwall
- 10. Koali Road Floodwall
- 11. Ala Wai Canal Floodwall
- 12. Dredge Ala Wai Canal
- 13. Dredge Manoa-Palolo Canal
- 14. Palolo Channel Modification
- 15. Nonstructural to reduce residual risk (not shown)



## Alternative 2B – Conveyance Cornerstone Initial Array

### Cornerstones:

- 1. Kanaha Floodwall
- 2. Woodlawn Bridge Floodwall
- 3. Koali Road Floodwall
- 4. Ala Wai Canal Floodwall

- 5. Waikiki Bypass
- 6. Ala Wai Canal Tunnel (2<sup>nd</sup> Outlet)
- 7. Dredge Ala Wai Canal
- 8. Dredge Manoa-Palolo Canal
- 9. Drainage Structure(s) (not an exact location)
- 10. Nonstructural to reduce residual risk (not shown)



## **Alternative 2B – Conveyance Cornerstone Plan Formulation Progression (3 iterations)**

#### Cornerstones:

- 1. Kanaha Floodwall
- 2. Woodlawn Bridge Floodwall
- 3. Koali Road Floodwall
- 4. Ala Wai Canal Floodwall

- 5. Waikiki Bypass
- 6. Ala Wai Canal Tunnel (2<sup>nd</sup> Outlet)
- 7. Dredge Ala Wai Canal
- 8. Dredge Manoa-Palolo Canal
- 9. Drainage Structure(s) (not an exact location)
- 10. Woodlawn Drive Bypass
- 11. Makiki District Park Detention
- 12. Nonstructural to reduce residual risk (not shown)

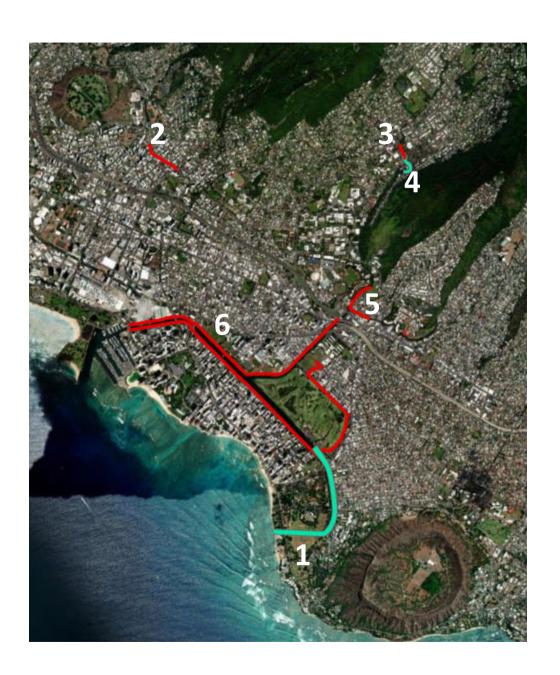


### Alternative 2B – Conveyance Cornerstone Proposal for Final Array

### Cornerstones:

- Kanaha Floodwall
- 2. Woodlawn Bridge Floodwall
- 3. Koali Road Floodwall
- 4. Ala Wai Canal Floodwall

- 5. Makiki District Park Detention
- 6. Drainage Structure(s) (not an exact location)
- 7. Nonstructural to reduce residual risk (not shown)



## Alternative 2C – Conveyance Cornerstone Initial Array

### Cornerstone:

1. Daylight Ala Wai Canal (2<sup>nd</sup> Outlet)

- 2. Kanaha Floodwall
- 3. Woodlawn Bridge Floodwall
- 4. Woodlawn Channel Modification
- 5. Koali Road Floodwall
- 6. Ala Wai Canal Floodwall
- 7. Nonstructural to reduce residual risk (not shown)



## Alternative 2C – Conveyance Cornerstone **Proposal: Screen out**

### Cornerstone:

1. Daylight Ala Wai Canal (2<sup>nd</sup> Outlet)

- 2. Kanaha Floodwall
- 3. Woodlawn Bridge Floodwall
- 4. Woodlawn Channel Modification
- 5. Koali Road Floodwall
- 6. Ala Wai Canal Floodwall
- 7. Makiki District Park Detention
- 8. Nonstructural to reduce residual risk (not shown)



## Alternative 3 – Tunnel Cornerstone Initial Array

### Cornerstones:

- 1. Makiki Tunnel
- 2. SWIFT Tunnel (Manoa)
- 3. SWIFT Tunnel (Palolo)

- 4. Woodlawn Bridge Floodwall
- 5. Ala Wai Canal Floodwall
- 6. Nonstructural to reduce residual risk (not shown)



### Alternative 3 – Tunnel Cornerstone Plan Formulation Progression (6 iterations)

### Cornerstones:

- 1. Makiki Tunnel
- 2. SWIFT Tunnel (Manoa)
- 3. SWIFT Tunnel (Palolo)

- 4. Woodlawn Bridge Floodwall
- 5. Ala Wai Canal Floodwall
- 6. Ala Wai Golf Course Detention
- 7. Piikoi Bypass
- 8. Nonstructural to reduce residual risk (not shown)

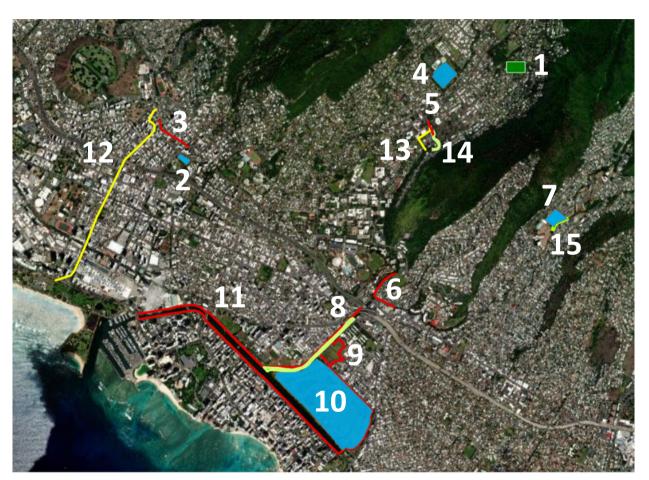


## Alternative 3 – Tunnel Cornerstone Proposal: Screen out

### Cornerstones:

- 1. Makiki Tunnel
- 2. SWIFT Tunnel (Manoa)
- 3. SWIFT Tunnel (Palolo)

- 4. Woodlawn Bridge Floodwall
- 5. Ala Wai Canal Floodwall
- 6. Ala Wai Golf Course Detention
- 7. Piikoi Bypass
- 8. Nonstructural to reduce residual risk (not shown)



# Alternative 4 – Natural & Nature-Based Features (NNBFs) Cornerstone Initial Array

#### Cornerstone:

1. Watershed Management

- 2. Makiki District Park Detention
- 3. Kanaha Floodwall
- 4. Manoa Valley District Park Detention
- 5. Woodlawn Bridge Floodwall
- 6. Koali Road Floodwall
- 7. Palolo Valley District Park Detention
- 8. Dredge Manoa-Palolo Canal
- 9. Kaimuki High School Berm/Floodwall
- 10. Ala Wai Golf Course Detention
- 11. Ala Wai Canal Floodwall
- 12. Piikoi Bypass
- 13. Woodlawn Drive Bypass
- 14. Woodlawn Channel Modification
- 15. Palolo Channel Modification
- 16. Nonstructural to reduce residual risk (not shown)



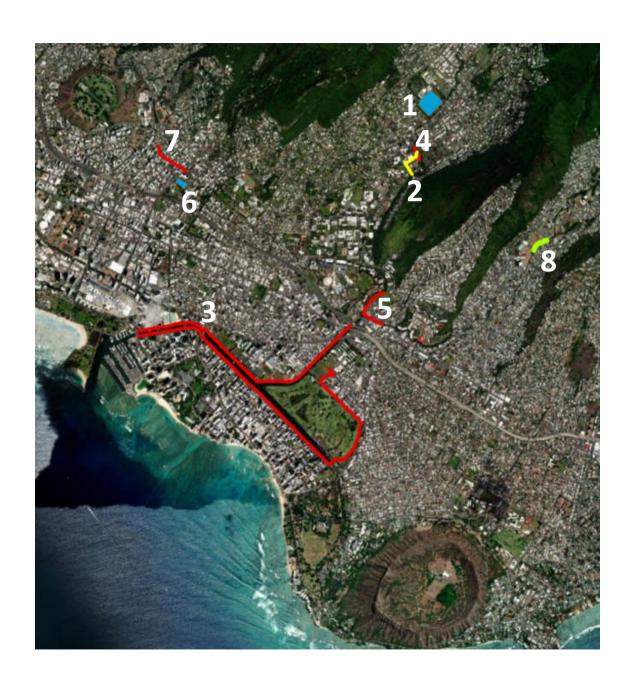
## Alternative 4 – Natural & Nature-Based Features (NNBFs) Cornerstone

**Proposal: Screen out** 

#### Cornerstone:

1. Watershed Management

- 2. Makiki District Park Detention
- 3. Kanaha Floodwall
- 4. Manoa Valley District Park Detention
- 5. Woodlawn Bridge Floodwall
- 6. Koali Road Floodwall
- 7. Palolo Valley District Park Detention
- 8. Dredge Manoa-Palolo Canal
- 9. Kaimuki High School Berm/Floodwall
- 10. Ala Wai Golf Course Detention
- 11. Ala Wai Canal Floodwall
- 12. Piikoi Bypass
- 13. Woodlawn Drive Bypass
- 14. Woodlawn Channel Modification
- 15. Palolo Channel Modification
- 16. Daylight Makiki Stream
- 17. Nonstructural to reduce residual risk (not shown)



## Alternative 5 – Hybrid Cornerstone Initial Array

### Cornerstones:

- 1. Manoa Valley District Park Detention
- 2. Woodlawn Drive Bypass
- 3. Ala Wai Canal Floodwall

- 4. Woodlawn Bridge Floodwall
- 5. Koali Road Floodwall
- 6. Makiki District Park Detention
- 7. Kanaha Floodwall
- 8. Palolo Channel Modification
- 9. Nonstructural to reduce residual risk (not shown)

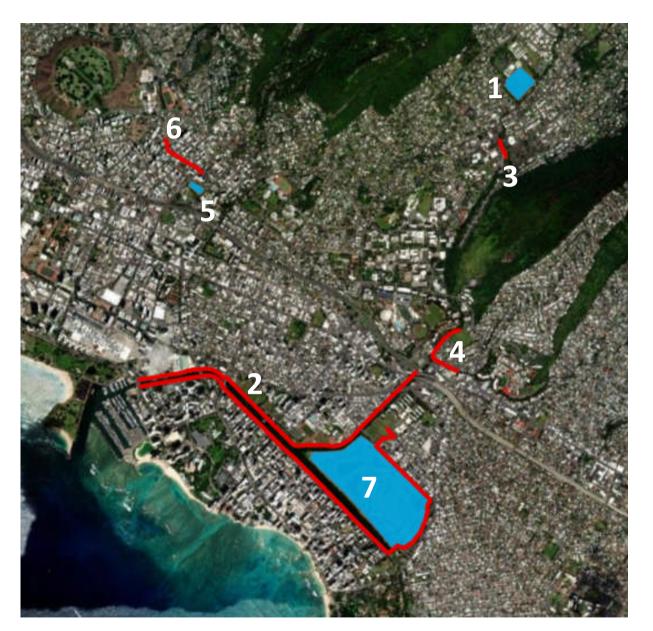


### Alternative 5 – Hybrid Cornerstone Plan Formulation Progression (4 iterations)

#### Cornerstones:

- 1. Manoa Valley District Park Detention
- 2. Woodlawn Drive Bypass
- 3. Ala Wai Canal Floodwall

- 4. Woodlawn Bridge Floodwall
- 5. Koali Road Floodwall
- 6. Makiki District Park Detention
- 7. Kanaha Floodwall
- 8. Palolo Channel Modification
- 9. Piikoi Bypass
- 10. Ala Wai Golf Course Detention
- 11. Dredge Ala Wai Canal
- 12. Woodlawn Channel Modification
- 13. Nonstructural to reduce residual risk (not shown)



### Alternative 5 – Hybrid Cornerstone Proposal for Final Array

### Cornerstones:

- 1. Manoa Valley District Park Detention
- 2. Ala Wai Canal Floodwall

- 3. Woodlawn Bridge Floodwall
- 4. Koali Road Floodwall
- 5. Makiki District Park Detention
- 6. Kanaha Floodwall
- 7. Ala Wai Golf Course Detention
- 8. Nonstructural to reduce residual risk (not shown)



## PROPOSED FINAL ARRAY OF ALTERNATIVES



- What is it?
  - A proposed array of alternative plans to be compared against each other to select the Tentatively Selected Plan (TSP)
    - Based on technical analysis and evaluation criteria to see how well each alternative meets the study objectives
- How "final" is it?
  - Changes can still be made to the alternatives (e.g., measures added, removed, optimized, etc.)
    - Driven by further evaluation and analysis, including public input
    - Nonstructural measures will receive additional consideration
  - Once screened out, alternatives are unlikely to be reincorporated into the Final Array of Alternatives



## PLAN DEVELOPMENT: FORMULATION



Plan Formulation Strategy: Cornerstone strategy

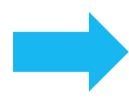
- Identify the 'most important' measure (i.e., cornerstone) for each plan.
- Add additional measures to cornerstones to meet objectives.
- Allows each 'type' of measure to be the focus of a plan.

### **Initial Array Cornerstones**

- 1. Storage cornerstone
- 2. Modified Conveyance cornerstones
  - A. Existing infrastructure / bypasses
  - B. Floodwalls
  - C. 2<sup>nd</sup> outlet / daylight
- 3. Tunnel cornerstone
- 4. Natural and Nature-based Features cornerstone
- 5. Hybrid cornerstone
- 6. No action



- 1. Storage cornerstone
- 2. Modified Conveyance cornerstone
  - B. Floodwalls
- 5. Hybrid cornerstone
- 6. No action
- + Potential for Nonstructural





## **TODAY'S AGENDA**



- 1. Introduction (15 min)
- 2. Presentation: Update on Study Progress (45 min)
- 3. Facilitated Breakout Group Discussions (75 min) ← You are here!
- 4. Large Group Discussion (40 min)
- 5. What Next? And Wrap-Up (5 min)

(3 hours total)



## **BREAKOUT GROUPS**



WebEx main room. (here)

Facilitator: Vera Koskelo

**Breakout Group 1:** 

Facilitators: Tyson Vaughan and Kelley Philbin (technical lead)

**Breakout Group 2:** 

Facilitators: Eric Merriam (study lead) and Kendall Campbell

**Breakout Group 3:** 

Facilitator: Cindy Acpal (PM) and Zack Hartley (lead planner)

75 minutes; random assignment



## POLL AND PROMPTS FOR DISCUSSION



What is your overall reaction to the proposed Final Array?

- A. Looks great!
- Not perfect, but I can live with it as-is
- It has potential, but needs some work
- I have serious concerns
- E. Unacceptable

Of the alternatives remaining in the proposed Final Array, which do you prefer?

Which alternatives give you the most pause?

What do you want us to know and consider as we begin the process of comparing alternatives and working toward a Tentatively Selected Plan?



## **GROUND RULES: WORK GROUPS**



- 1. Post comments and questions in the chat or use the "raise hand" tool.
- 2. Keep your audio on mute unless speaking.
- Introduce yourself briefly the first time you speak.
- 4. When speaking, be conscious of acronyms and technical language.
- 5. Be mindful and help ensure that everyone has a chance to speak.
- 6. Send additional thoughts, questions and suggestions to AlaWai@honolulu.gov.



## **TODAY'S AGENDA**



- Introduction (15 min)
- 2. Presentation: Update on Study Progress (45 min)
- 3. Facilitated Breakout Group Discussions (75 min)
- Large Group Discussion (40 min) ← You are here!
- 5. What Next? And Wrap-Up (5 min)

(3 hours total)



## LARGE GROUP DISCUSSION



- Group facilitators will report out the following to the larger group:.
  - Key themes related to the final array of alternatives
  - Questions
  - Comments and suggestions

5 minutes for each group

- Reporting Order: breakout groups 1, 2, 3, and then main room
- USACE and CCH will respond to questions and suggestions from attendees
- Focus on discussion inputs from small groups, but we welcome additional questions and comments in the chat

40 minutes



## **TODAY'S AGENDA**



- 1. Introduction (15 min)
- 2. Presentation: Update on Study Progress (45 min)
- 3. Facilitated Breakout Group Discussions (75 min)
- Large Group Discussion (40 min)
- 5. What Next? And Wrap-Up (5 min) ← You are here!

(3 hours total)



### **WRAP-UP: NEXT STEPS**



- The project delivery team will review public feedback (this meeting and ongoing).
- The Final Alternatives Array will be finalized.
- Alternatives will be further evaluated and compared against each other to identify a Tentatively Selected Plan (TSP).
  - The TSP will be a preliminary recommendation for the agency, pending further feasibility-level analysis and feedback.
  - Updates will continue to be published at <u>Honolulu.gov/AlaWai</u>.
- The next public meetings will focus on the Tentatively Selected Plan
  - Targeting Draft Report release around the May-June 2023 timeframe
  - Will include at least one in-person meeting



## **MAHALO**



- Stay in touch; we welcome and value your input!
- Email the project team: AlaWai@Honolulu.gov.
- Check the project website: <a href="https://www.honolulu.gov/AlaWai">https://www.honolulu.gov/AlaWai</a>.
  - Sign up for additional meeting notifications
  - Comment form
  - Continuously updated FAQs
  - Follow the Plan Formulation Tracker